



C18:1 Frequencies
 for 92EF (WSGA 1A X Q0508)

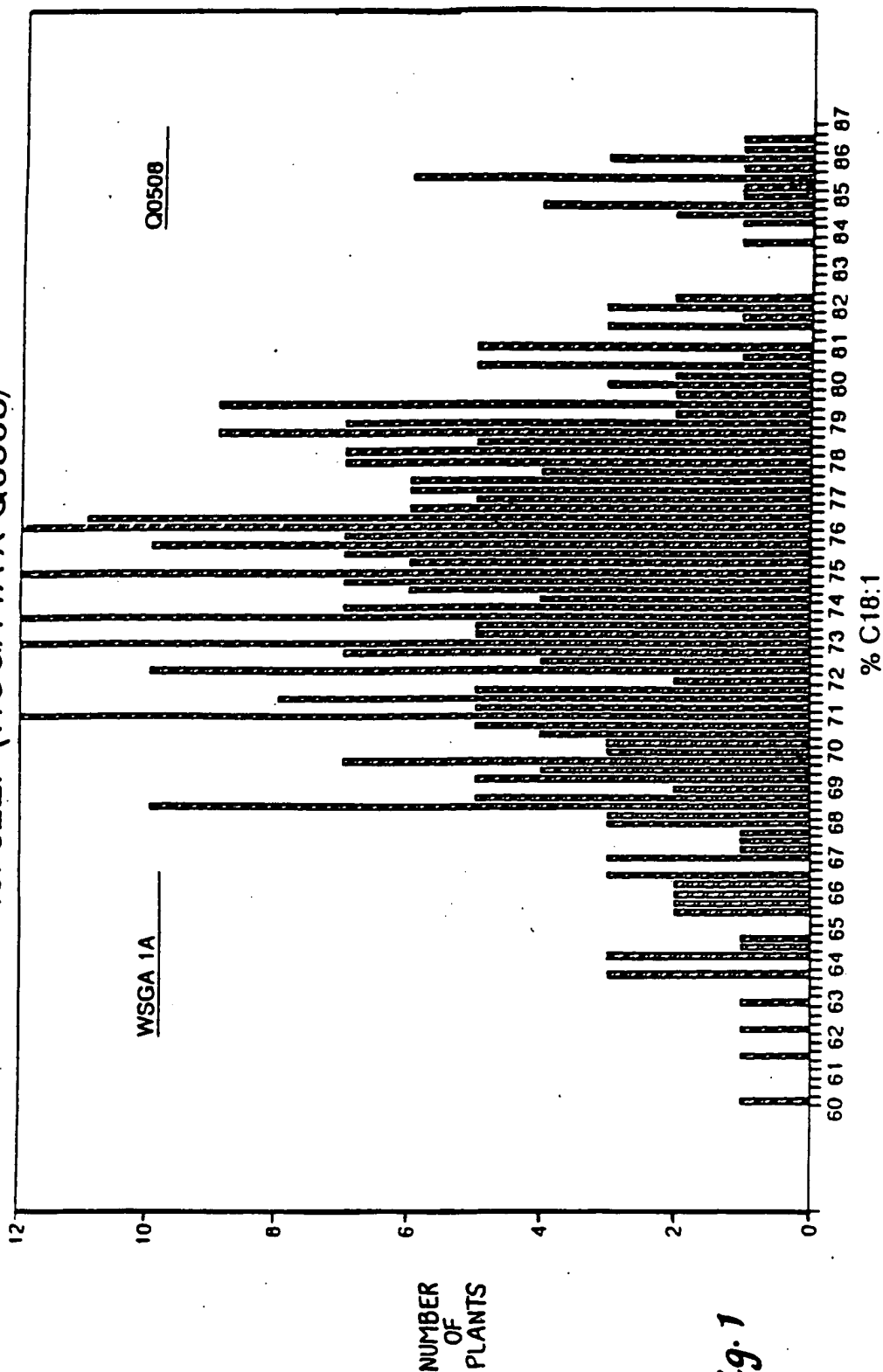


Fig. 1

	10	20	30	40	
1	A T G G G T G C A G G T G G A A G A A T G G C A A G T G T C T C C T C C C T C C A	Fad2-D wt			
1	A T G G G T G C A G G T G G A A G A A T G G C A A G T G T C T C C T C C C T C C A	Fad2-D (GA316) IMC 129			
1	A T G G G T G C A G G T G G A A G A A T G G C A A G T G T C T C C T C C C T C C A	Fad2-F wt			
1	A T G G G T G C A G G T G G A A G A A T G G C A A G T G T C T C C T C C C T C C A	Fad2-F (TA515) Q508			
1	A T G G G T G C A G G T G G A A G A A T G G C A A G T G T C T C C T C C C T C C A	Fad2-F (GA908) Q4275			
41	A A A G T C T G A A A A C C G A C A A C A T C A A G C G C G T A C C C T G C G A	Fad2-D wt			
41	A A A G T C T G A A A A C C G A C A A C A T C A A G C G C G T A C C C T G C G A	Fad2-D (GA316) IMC 129			
41	A G A A G T C T G A A A A C C G A C A C C A T C A A G C G C G T A C C C T G C G A	Fad2-F wt			
41	A G A A G T C T G A A A A C C G A C A C C A T C A A G C G C G T A C C C T G C G A	Fad2-F (TA515) Q508			
41	A G A A G T C T G A A A A C C G A C A C C A T C A A G C G C G T A C C C T G C G A	Fad2-F (GA908) Q4275			
81	G A C A C C G C C C T T C A C T G T C G G A G A A C T C A A G A A A G C A A T C	Fad2-D wt			
81	G A C A C C G C C C T T C A C T G T C G G A G A A C T C A A G A A A G C A A T C	Fad2-D (GA316) IMC 129			
81	G A C A C C G C C C T T C A C T G T C G G A G A A C T C A A G A A A G C A A T C	Fad2-F wt			
81	G A C A C C G C C C T T C A C T G T C G G A G A A C T C A A G A A A G C A A T C	Fad2-F (TA515) Q508			
81	G A C A C C G C C C T T C A C T G T C G G A G A A C T C A A G A A A G C A A T C	Fad2-F (GA908) Q4275			
121	C C A C C G C A C T G T T T C A A A C G C T C G A T C C C C T C G C T C T T T C T	Fad2-D wt			
121	C C A C C G C A C T G T T T C A A A C G C T C G A T C C C C T C G C T C T T T C T	Fad2-D (GA316) IMC 129			
121	C C A C C G C A C T G T T T C A A A C G C T C G A T C C C C T C G C T C T T T C T	Fad2-F wt			
121	C C A C C G C A C T G T T T C A A A C G C T C G A T C C C C T C G C T C T T T C T	Fad2-F (TA515) Q508			
121	C C A C C G C A C T G T T T C A A A C G C T C G A T C C C C T C G C T C T T T C T	Fad2-F (GA908) Q4275			

Fig. 2A

	170	180	190	200		
161	CCTA	CCCTCA	TCCTGGGACA	TCA	TCA	Fad2-D wt
161	CCTA	CCCTCA	TCCTGGGACA	TCA	TCA	Fad2-D (GA316)
161	CCTA	CCCTCA	TCCTGGGACA	TCA	TCA	Fad2-F wt
161	CCTA	CCCTCA	TCCTGGGACA	TCA	TCA	Fad2-F (TA515)
161	CCTA	CCCTCA	TCCTGGGACA	TCA	TCA	Fad2-F (GA908)

	210	220	230	240		
201	CTAC	GTGCGC	CA	CCACTT	CTCCTCCCTCACCCCT	Fad2-D wt
201	CTAC	GTGCGC	CA	CCACTT	CTCCTCCCTCACCCCT	Fad2-D (GA316)
201	CTAC	GTGCGC	CA	CCACTT	CTCCTCCCTCACCCCT	Fad2-F wt
201	CTAC	GTGCGC	CA	CCACTT	CTCCTCCCTCACCCCT	Fad2-F (TA515)
201	CTAC	GTGCGC	CA	CCACTT	CTCCTCCCTCACCCCT	Fad2-F (GA908)

	250	260	270	280		
241	CTCT	CCCTAC	TTGCGC	CTCTCT	CTGCGCCTGCCCAGG	Fad2-D wt
241	CTCT	CCCTAC	TTGCGC	CTCTCT	CTGCGCCTGCCCAGG	Fad2-D (GA316)
241	CTCT	CCCTAC	TTGCGC	CTCTCT	CTGCGCCTGCCCAGG	Fad2-F wt
241	CTCT	CCCTAC	TTGCGC	CTCTCT	CTGCGCCTGCCCAGG	Fad2-F (TA515)
241	CTCT	CCCTAC	TTGCGC	CTCTCT	CTGCGCCTGCCCAGG	Fad2-F (GA908)

	290	300	310	320				
281	GCTG	CGTC	CTA	ACCGGC	GTCTGGGGTCA	TAGCCCA	CAGGTG	Fad2-D wt
281	GCTG	CGTC	CTA	ACCGGC	GTCTGGGGTCA	TAGCCCA	CAGGTG	Fad2-D (GA316)
281	GCTG	CGTC	CTA	ACCGGC	GTCTGGGGTCA	TAGCCCA	CAGGTG	Fad2-F wt
281	GCTG	CGTC	CTA	ACCGGC	GTCTGGGGTCA	TAGCCCA	CAGGTG	Fad2-F (TA515)
281	GCTG	CGTC	CTA	ACCGGC	GTCTGGGGTCA	TAGCCCA	CAGGTG	Fad2-F (GA908)

Fig. 2B

Applicant(s): Dharma R. Kodali et al.

PLANTS, SEEDS AND OILS HAVING AN ELEVATED TOTAL
MONOUNSATURATED FATTY ACID CONTENT

	330	340	350	360	
321	C G G C C A C C A C G G C C T T C A G C G A C T A C C A G T G G C T G G A C G A C	Fad2-D wt			
321	C G G C C A C C A C G G C C T T C A G C G A C T A C C A G T G G C T G G A C G A C	Fad2-D (GA316) IMC 129			
321	C G G C C A C C A C G G C C T T C A G C G A C T A C C A G T G G C T T G A C G A C	Fad2-F wt			
321	C G G C C A C C A C G G C C T T C A G C G A C T A C C A G T G G C T T G A C G A C	Fad2-F (TA515) Q508			
321	C G G C C A C C A C G G C C T T C A G C G A C T A C C A G T G G C T T G A C G A C	Fad2-F (GA908) Q4275			
	370	380	390	400	
361	A C C G T C G G G C C T C A T C T T C C A C T C C C T C C T C G T C C C T T	Fad2-D wt			
361	A C C G T C G G G C C T C A T C T T C C A C T C C C T C C T C G T C C C T T	Fad2-D (GA316) IMC 129			
361	A C C G T C G G G C C T C A T C T T C C A C T C C C T C C T C G T C C C T T	Fad2-F wt			
361	A C C G T C G G G C C T C A T C T T C C A C T C C C T C C T C G T C C C T T	Fad2-F (TA515) Q508			
361	A C C G T C G G G C C T C A T C T T C C A C T C C C T C C T C G T C C C T T	Fad2-F (GA908) Q4275			
	410	420	430	440	
401	A C T T C T C C T G G A A G T A C A G T C A T C G A C G C C A C C A T T C C C A A	Fad2-D wt			
401	A C T T C T C C T G G A A G T A C A G T C A T C G A C G C C A C C A T T C C C A A	Fad2-D (GA316) IMC 129			
401	A C T T C T C C T G G A A G T A C A G T C A T C G A C G C C A C C A T T C C C A A	Fad2-F wt			
401	A C T T C T C C T G G A A G T A C A G T C A T C G A C G C C A C C A T T C C C A A	Fad2-F (TA515) Q508			
401	A C T T C T C C T G G A A G T A C A G T C A T C G A C G C C A C C A T T C C C A A	Fad2-F (GA908) Q4275			
	450	460	470	480	
441	C A C T G G C T C C C C T C G A G A G A G A C G A A G T G T T T G T C C C C A A G	Fad2-D wt			
441	C A C T G G C T C C C C T C G A G A G A G A C G A A G T G T T T G T C C C C A A G	Fad2-D (GA316) IMC 129			
441	C A C T G G C T C C C C T C G A G A G A G A C G A A G T G T T T G T C C C C A A G	Fad2-F wt			
441	C A C T G G C T C C C C T C G A G A G A G A C G A A G T G T T T G T C C C C A A G	Fad2-F (TA515) Q508			
441	C A C T G G C T C C C C T C G A G A G A G A C G A A G T G T T T G T C C C C A A G	Fad2-F (GA908) Q4275			

Fig. 2C

Applicant(s): Dharmar R. Kodali et al.

PLANTS, SEEDS AND OILS HAVING AN ELEVATED TOTAL
MONOUNSATURATED FATTY ACID CONTENT

	490	500	510	520	
481	A A G A A G T C A G A C A T C A A G T G G T A C G G C C A A G T A C C T C A A C A			Fad2-D wt	
481	A A G A A G T C A G A C A T C A A G T G G T A C G G C C A A G T A C C T C A A C A			Fad2-D (GA316)	IMC 129
481	A A G A A G T C A G A C A T C A A G T G G T A C G G C C A A G T A C C T C A A C A			Fad2-F wt	
481	A A G A A G T C A G A C A T C A A G T G G T A C G G C C A A G T A C C T C A A C A			Fad2-F (TA515)	Q508
481	A A G A A G T C A G A C A T C A A G T G G T A C G G C C A A G T A C C T C A A C A			Fad2-F (GA908)	Q4275
521	A C C C T T T G G G A C G C A C G G T G A T G T T A A C G G T T C A G T T C A C	530	540	550	560
521	A C C C T T T G G G A C G C A C G G T G A T G T T A A C G G T T C A G T T C A C			Fad2-D wt	
521	A C C C T T T G G G A C G C A C G G T G A T G T T A A C G G T T C A G T T C A C			Fad2-D (GA316)	IMC 129
521	A C C C T T T G G G A C G C A C G G T G A T G T T A A C G G T T C A G T T C A C			Fad2-F wt	
521	A C C C T T T G G G A C G C A C G G T G A T G T T A A C G G T T C A G T T C A C			Fad2-F (TA515)	Q508
521	A C C C T T T G G G A C G C A C G G T G A T G T T A A C G G T T C A G T T C A C			Fad2-F (GA908)	Q4275
561	T C T C G G C T G G C C C T T T G T A C T T A G C C C T T C A A C G T C T C G G G G	570	580	590	600
561	T C T C G G C T G G C C C T T T G T A C T T A G C C C T T C A A C G T C T C G G G G			Fad2-D wt	
561	T C T C G G C T G G C C C T T T G T A C T T A G C C C T T C A A C G T C T C G G G G			Fad2-D (GA316)	IMC 129
561	T C T C G G C T G G C C C T T T G T A C T T A G C C C T T C A A C G T C T C G G G G			Fad2-F wt	
561	T C T C G G C T G G C C C T T T G T A C T T A G C C C T T C A A C G T C T C G G G G			Fad2-F (TA515)	Q508
561	T C T C G G C T G G C C C T T T G T A C T T A G C C C T T C A A C G T C T C G G G G			Fad2-F (GA908)	Q4275
601	A G A C C C T T A C G A C G G C G G C C T T C G C T T G C C A T T T C C A C C C C A	610	620	630	640
601	A G A C C C T T A C G A C G G C G G C C T T C G C T T G C C A T T T C C A C C C C A			Fad2-D wt	
601	A G A C C C T T A C G A C G G C G G C C T T C G C T T G C C A T T T C C A C C C C A			Fad2-D (GA316)	IMC 129
601	A G A C C C T T A C G A C G G C G G C C T T C G C T T G C C A T T T C C A C C C C A			Fad2-F wt	
601	A G A C C C T T A C G A C G G C G G C C T T C G C T T G C C A T T T C C A C C C C A			Fad2-F (TA515)	Q508
601	A G A C C C T T A C G A C G G C G G C C T T C G C T T G C C A T T T C C A C C C C A			Fad2-F (GA908)	Q4275

Fig. 2D

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Fig. 2E

Fig. 2E

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Fig. 27

Applicant(s): Dharma R. Kodali et al.

PLANTS, SEEDS AND OILS HAVING AN ELEVATED TOTAL
MONOUNSATURATED FATTY ACID CONTENT

	970	980	990	1000	
961	C T G T T C T C G A C C A T G C C G C A T T A T C A T G C C G A T G G A A G C C T A	Fad2-D wt			
961	C T G T T C T C G A C C A T G C C G C A T T A T C A T G C C G A T G G A A G C C T A	Fad2-D (GA316)			IMC 129
961	C T G T T C T C C A C G A T G C C G C A T T A T C A C G C G A T G G A A G C C T A	Fad2-F wt			
961	C T G T T C T C C A C G A T G C C G C A T T A T C A C G C G A T G G A A G C C T A	Fad2-F (TA515)			Q508
961	C T G T T C T C C A C G A T G C C G C A T T A T C A C G C G A T G G A A G C C T A	Fad2-F (GA908)			Q4275
	1010	1020	1030	1040	
1001	C G A A G G C G A T A A A G C C C G A T A C T G G G A G A G T A T T A T C A G T T	Fad2-D wt			
1001	C G A A G G C G A T A A A G C C C G A T A C T G G G A G A G T A T T A T C A G T T	Fad2-D (GA316)			IMC 129
1001	C C A A G G C G A T A A A G C C C G A T A C T G G G A G A G T A T T A T C A G T T	Fad2-F wt			
1001	C C A A G G C G A T A A A G C C C G A T A C T G G G A G A G T A T T A T C A G T T	Fad2-F (TA515)			Q508
1001	C C A A G G C G A T A A A G C C C G A T A C T G G G A G A G T A T T A T C A G T T	Fad2-F (GA908)			Q4275
	1050	1060	1070	1080	
1041	C G A T G G G A C G C C G G T G G T T A A G G C C G A T G T G G A G G G A G G C G	Fad2-D wt			
1041	C G A T G G G A C G C C G G T G G T T A A G G C C G A T G T G G A G G G A G G C G	Fad2-D (GA316)			IMC 129
1041	C G A T G G G A C G C C G G T G G T T A A G G C C G A T G T G G A G G G A G G C G	Fad2-F wt			
1041	C G A T G G G A C G C C G G T G G T T A A G G C C G A T G T G G A G G G A G G C G	Fad2-F (TA515)			Q508
1041	C G A T G G G A C G C C G G T G G T T A A G G C C G A T G T G G A G G G A G G C G	Fad2-F (GA908)			Q4275

Fig. 29

Applicant(s): Dharma R. Kodali et al.

PLANTS, SEEDS AND OILS HAVING AN ELEVATED TOTAL
MONOUNSATURATED FATTY ACID CONTENT

	1090	1100	1110	1120	
1081	A A G G A G T G T A T C T A T G T G G A A C C G G A C A G G C A A G G T G A G A	Fad2-D wt			
1081	A A G G A G T G T A T C T A T G T G G A A C C G G A C A G G C A A G G T G A G A	Fad2-D (GA316) IMC 129			
1081	A A G G A G T G T A T C T A T G T G G A A C C G G A C A G G C A A G G T G A G A	Fad2-F wt			
1081	A A G G A G T G T A T C T A T G T G G A A C C G G A C A G G C A A G G T G A G A	Fad2-F (TA515) Q508			
1081	A A G G A G T G T A T C T A T G T G G A A C C G G A C A G G C A A G G T G A G A	Fad2-F (GA908) Q4275			
1081	A A G G A G T G T A T C T A T G T G G A A C C G G A C A G G C A A G G T G A G A	Fad2-F (GA908) Q4275			
	1130	1140	1150		
1121	A G A A A G G T G T G T T C T G G T A C A A C A A T A A G T T A T G A	Fad2-D wt			
1121	A G A A A G G T G T G T T C T G G T A C A A C A A T A A G T T A T G A	Fad2-D (GA316) IMC 129			
1121	A G A A A G G T G T G T T C T G G T A C A A C A A T A A G T T A T G A	Fad2-F wt			
1121	A G A A A G G T G T G T T C T G G T A C A A C A A T A A G T T A T G A	Fad2-F (TA515) Q508			
1121	A G A A A G G T G T G T T C T G G T A C A A C A A T A A G T T A T G A	Fad2-F (GA908) Q4275			
1121	A G A A A G G T G T G T T C T G G T A C A A C A A T A A G T T A T G A	Fad2-F (GA908) Q4275			

Fig. 2H

	10	20
1	Met Gly Ala Gly Gly Arg Met Gln Val Ser Pro Pro Ser Ser Lys Lys Ser Glu Thr Asp Asn	Fad2-D wt (GA316) IMC129
1	Met Gly Ala Gly Gly Arg Met Gln Val Ser Pro Pro Ser Ser Lys Lys Ser Glu Thr Asp Asn	Fad2-D wt
1	Met Gly Ala Gly Gly Arg Met Gln Val Ser Pro Pro Ser Ser Lys Lys Ser Glu Thr Asp Thr	Fad2-F (TA515) Q508
1	Met Gly Ala Gly Gly Arg Met Gln Val Ser Pro Pro Ser Ser Lys Lys Ser Glu Thr Asp Thr	Fad2-F (GA908) Q4275
1	Met Gly Ala Gly Gly Arg Met Gln Val Ser Pro Pro Ser Ser Lys Lys Ser Glu Thr Asp Thr	
	30	40
21	Ile Lys Arg Val Pro Cys Glu Thr Pro Pro Phe Thr Val Gly Glu Leu Lys Lys Ala Ile	Fad2-D wt (GA316) IMC129
21	Ile Lys Arg Val Pro Cys Glu Thr Pro Pro Phe Thr Val Gly Glu Leu Lys Lys Ala Ile	Fad2-F wt
21	Ile Lys Arg Val Pro Cys Glu Thr Pro Pro Phe Thr Val Gly Glu Leu Lys Lys Ala Ile	Fad2-F (TA515) Q508
21	Ile Lys Arg Val Pro Cys Glu Thr Pro Pro Phe Thr Val Gly Glu Leu Lys Lys Ala Ile	Fad2-F (GA908) Q4275
21	Ile Lys Arg Val Pro Cys Glu Thr Pro Pro Phe Thr Val Gly Glu Leu Lys Lys Ala Ile	
	50	60
41	Pro Pro His Cys Phe Lys Arg Ser Ile Pro Arg Ser Phe Ser Tyr Tyr Leu Ile Trp Asp Ile	Fad2-D wt (GA316) IMC129
41	Pro Pro His Cys Phe Lys Arg Ser Ile Pro Arg Ser Phe Ser Tyr Tyr Leu Ile Trp Asp Ile	Fad2-F wt
41	Pro Pro His Cys Phe Lys Arg Ser Ile Pro Arg Ser Phe Ser Tyr Tyr Leu Ile Trp Asp Ile	Fad2-F (TA515) Q508
41	Pro Pro His Cys Phe Lys Arg Ser Ile Pro Arg Ser Phe Ser Tyr Tyr Leu Ile Trp Asp Ile	Fad2-F (GA908) Q4275
41	Pro Pro His Cys Phe Lys Arg Ser Ile Pro Arg Ser Phe Ser Tyr Tyr Leu Ile Trp Asp Ile	
	70	80
61	Ile Ile Ala Ser Cys Phe Tyr Tyr Tyr Val Ala Thr Thr Tyr Phe Pro Leu Leu Pro His Pro	Fad2-D wt (GA316) IMC129
61	Ile Ile Ala Ser Cys Phe Tyr Tyr Tyr Val Ala Thr Thr Tyr Phe Pro Leu Leu Pro His Pro	Fad2-F wt
61	Ile Ile Ala Ser Cys Phe Tyr Tyr Tyr Val Ala Thr Thr Tyr Phe Pro Leu Leu Pro His Pro	Fad2-F (TA515) Q508
61	Ile Ile Ala Ser Cys Phe Tyr Tyr Tyr Val Ala Thr Thr Tyr Phe Pro Leu Leu Pro His Pro	Fad2-F (GA908) Q4275
61	Ile Ile Ala Ser Cys Phe Tyr Tyr Tyr Val Ala Thr Thr Tyr Phe Pro Leu Leu Pro His Pro	

Fig. 3A

Applicant(s): Dharma R. Kodali et al.

PLANTS, SEEDS AND OILS HAVING AN ELEVATED TOTAL
MONOUNSATURATED FATTY ACID CONTENT

		90										100										
	Leu	Ser	Tyr	Phe	Ala	Trp	Pro	Leu	Tyr	Trp	Ala	Cys	Gln	Gly	Cys	Val	Leu	Thr	Gly	Val	Fad2-D wt	
81	Leu	Ser	Tyr	Phe	Ala	Trp	Pro	Leu	Tyr	Trp	Ala	Cys	Gln	Gly	Cys	Val	Leu	Thr	Gly	Val	Fad2-D (GA316)	
81	Leu	Ser	Tyr	Phe	Ala	Trp	Pro	Leu	Tyr	Trp	Ala	Cys	Gln	Gly	Cys	Val	Leu	Thr	Gly	Val	Fad2-F wt	
81	Leu	Ser	Tyr	Phe	Ala	Trp	Pro	Leu	Tyr	Trp	Ala	Cys	Gln	Gly	Cys	Val	Leu	Thr	Gly	Val	Fad2-F (TA515)	
81	Leu	Ser	Tyr	Phe	Ala	Trp	Pro	Leu	Tyr	Trp	Ala	Cys	Gln	Gly	Cys	Val	Leu	Thr	Gly	Val	Fad2-F (GA908)	
81	Leu	Ser	Tyr	Phe	Ala	Trp	Pro	Leu	Tyr	Trp	Ala	Cys	Gln	Gly	Cys	Val	Leu	Thr	Gly	Val	Fad2-F (GA908) Q4275	
<hr/>																						
		110										120										
	Trp	Val	Ile	Ala	His	Glu	Cys	Gly	His	His	Ala	Phe	Ser	Asp	Tyr	Gln	Trp	Leu	Asp	Asp	Fad2-D wt	
101	Trp	Val	Ile	Ala	His	Lys	Cys	Gly	His	His	Ala	Phe	Ser	Asp	Tyr	Gln	Trp	Leu	Asp	Asp	Fad2-D (GA316)	
101	Trp	Val	Ile	Ala	His	Glu	Cys	Gly	His	His	Ala	Phe	Ser	Asp	Tyr	Gln	Trp	Leu	Asp	Asp	Fad2-F wt	
101	Trp	Val	Ile	Ala	His	Glu	Cys	Gly	His	His	Ala	Phe	Ser	Asp	Tyr	Gln	Trp	Leu	Asp	Asp	Fad2-F (TA515)	
101	Trp	Val	Ile	Ala	His	Glu	Cys	Gly	His	His	Ala	Phe	Ser	Asp	Tyr	Gln	Trp	Leu	Asp	Asp	Fad2-F (GA908)	
101	Trp	Val	Ile	Ala	His	Glu	Cys	Gly	His	His	Ala	Phe	Ser	Asp	Tyr	Gln	Trp	Leu	Asp	Asp	Fad2-F (GA908) Q4275	
<hr/>																						
		130										140										
	Thr	Val	Gly	Leu	Ile	Phe	His	Ser	Phe	His	Leu	Leu	Val	Pro	Tyr	Phe	Ser	Trp	Lys	Tyr	Ser	Fad2-D wt
121	Thr	Val	Gly	Leu	Ile	Phe	His	Ser	Phe	His	Leu	Leu	Val	Pro	Tyr	Phe	Ser	Trp	Lys	Tyr	Ser	Fad2-D (GA316)
121	Thr	Val	Gly	Leu	Ile	Phe	His	Ser	Phe	His	Leu	Leu	Val	Pro	Tyr	Phe	Ser	Trp	Lys	Tyr	Ser	Fad2-F wt
121	Thr	Val	Gly	Leu	Ile	Phe	His	Ser	Phe	His	Leu	Leu	Val	Pro	Tyr	Phe	Ser	Trp	Lys	Tyr	Ser	Fad2-F (TA515)
121	Thr	Val	Gly	Leu	Ile	Phe	His	Ser	Phe	His	Leu	Leu	Val	Pro	Tyr	Phe	Ser	Trp	Lys	Tyr	Ser	Fad2-F (GA908)
121	Thr	Val	Gly	Leu	Ile	Phe	His	Ser	Phe	His	Leu	Leu	Val	Pro	Tyr	Phe	Ser	Trp	Lys	Tyr	Ser	Fad2-F (GA908) Q4275
<hr/>																						
		150										160										
	His	Arg	Arg	His	His	Ser	Asn	Thr	Gly	Ser	Leu	Glu	Arg	Asp	Glu	Val	Phe	Val	Pro	Lys	Fad2-D wt	
141	His	Arg	Arg	His	His	Ser	Asn	Thr	Gly	Ser	Leu	Glu	Arg	Asp	Glu	Val	Phe	Val	Pro	Lys	Fad2-D (GA316)	
141	His	Arg	Arg	His	His	Ser	Asn	Thr	Gly	Ser	Leu	Glu	Arg	Asp	Glu	Val	Phe	Val	Pro	Lys	Fad2-F wt	
141	His	Arg	Arg	His	His	Ser	Asn	Thr	Gly	Ser	Leu	Glu	Arg	Asp	Glu	Val	Phe	Val	Pro	Lys	Fad2-F (TA515)	
141	His	Arg	Arg	His	His	Ser	Asn	Thr	Gly	Ser	Leu	Glu	Arg	Asp	Glu	Val	Phe	Val	Pro	Lys	Fad2-F (GA908)	
141	His	Arg	Arg	His	His	Ser	Asn	Thr	Gly	Ser	Leu	Glu	Arg	Asp	Glu	Val	Phe	Val	Pro	Lys	Fad2-F (GA908) Q4275	

Fig. 3B

Fig. 3C

Applicant(s): Dharma R. Kodali et al.

PLANTS, SEEDS AND OILS HAVING AN ELEVATED TOTAL
MONOUNSATURATED FATTY ACID CONTENT

		250		260	
241	Tyr Arg Tyr Ala Ala Val Gln Gly Val Ala Ser Met Val Cys Phe Tyr Gly Val Pro Leu			Fad2-D wt	
241	Tyr Arg Tyr Ala Ala Val Gln Gly Val Ala Ser Met Val Cys Phe Tyr Gly Val Pro Leu			Fad2-D (GA316)	IMC129
241	Phe Arg Tyr Ala Ala Val Gln Gly Val Ala Ser Met Val Cys Phe Tyr Gly Val Pro Leu			Fad2-F wt	
241	Phe Arg Tyr Ala Ala Val Gln Gly Val Ala Ser Met Val Cys Phe Tyr Gly Val Pro Leu			Fad2-F (TA515)	Q508
241	Phe Arg Tyr Ala Ala Val Gln Gly Val Ala Ser Met Val Cys Phe Tyr Gly Val Pro Leu			Fad2-F (GA908)	Q4275
		270		280	
261	Leu Ile Val Asn Gly Phe Leu Val Leu Ile Thr Tyr Leu Gln His Thr His Pro Ser Leu			Fad2-D wt	
261	Leu Ile Val Asn Gly Phe Leu Val Leu Ile Thr Tyr Leu Gln His Thr His Pro Ser Leu			Fad2-D (GA316)	IMC129
261	Leu Ile Val Asn Gly Phe Leu Val Leu Ile Thr Tyr Leu Gln His Thr His Pro Ser Leu			Fad2-F wt	
261	Leu Ile Val Asn Gly Phe Leu Val Leu Ile Thr Tyr Leu Gln His Thr His Pro Ser Leu			Fad2-F (TA515)	Q508
261	Leu Ile Val Asn Gly Phe Leu Val Leu Ile Thr Tyr Leu Gln His Thr His Pro Ser Leu			Fad2-F (GA908)	Q4275
		290		300	
281	Pro His Tyr Asp Ser Ser Glu Trp Asp Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg			Fad2-D wt	
281	Pro His Tyr Asp Ser Ser Glu Trp Asp Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg			Fad2-D (GA316)	IMC129
281	Pro His Tyr Asp Ser Ser Glu Trp Asp Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg			Fad2-F wt	
281	Pro His Tyr Asp Ser Ser Glu Trp Asp Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg			Fad2-F (TA515)	Q508
281	Pro His Tyr Asp Ser Ser Glu Trp Asp Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg			Fad2-F (GA908)	Q4275
		310		320	
301	Asp Tyr Gly Ile Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His			Fad2-D wt	
301	Asp Tyr Gly Ile Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His			Fad2-D (GA316)	IMC129
301	Asp Tyr Gly Ile Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His			Fad2-F wt	
301	Asp Tyr Gly Ile Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His			Fad2-F (TA515)	Q508
301	Asp Tyr Glu Ile Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His			Fad2-F (GA908)	Q4275

Fig. 3D

Applicant(s): Dharma R. Kodali et al.

PLANTS, SEEDS AND OILS HAVING AN ELEVATED TOTAL
MONOUNSATURATED FATTY ACID CONTENT

		330		340			
321	Leu Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile Lys Pro Ile			Fad2-D wt			
321	Leu Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile Lys Pro Ile			Fad2-D (GA316)	IMC129		
321	Leu Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile Lys Pro Ile			Fad2-F wt			
321	Leu Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile Lys Pro Ile			Fad2-F (TA515)	Q508		
321	Leu Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile Lys Pro Ile			Fad2-F (GA908)	Q4275		
		350		360			
341	Leu Gly Glu Tyr Tyr Gln Phe Asp Gly Thr Pro Val Val Lys Ala Met Trp Arg Glu Ala			Fad2-D wt			
341	Leu Gly Glu Tyr Tyr Gln Phe Asp Gly Thr Pro Val Val Lys Ala Met Trp Arg Glu Ala			Fad2-D (GA316)	IMC129		
341	Leu Gly Glu Tyr Tyr Gln Phe Asp Gly Thr Pro Val Val Lys Ala Met Trp Arg Glu Ala			Fad2-F wt			
341	Leu Gly Glu Tyr Tyr Gln Phe Asp Gly Thr Pro Val Val Lys Ala Met Trp Arg Glu Ala			Fad2-F (TA515)	Q508		
341	Leu Gly Glu Tyr Tyr Gln Phe Asp Gly Thr Pro Val Val Lys Ala Met Trp Arg Glu Ala			Fad2-F (GA908)	Q4275		
		370		380			
361	Lys Glu Cys Ile Tyr Val Glu Pro Asp Arg Gln Gly Glu Lys Lys Gly Val Phe Trp Tyr			Fad2-D wt			
361	Lys Glu Cys Ile Tyr Val Glu Pro Asp Arg Gln Gly Glu Lys Lys Gly Val Phe Trp Tyr			Fad2-D (GA316)	IMC129		
361	Lys Glu Cys Ile Tyr Val Glu Pro Asp Arg Gln Gly Glu Lys Lys Gly Val Phe Trp Tyr			Fad2-F wt			
361	Lys Glu Cys Ile Tyr Val Glu Pro Asp Arg Gln Gly Glu Lys Lys Gly Val Phe Trp Tyr			Fad2-F (TA515)	Q508		
361	Lys Glu Cys Ile Tyr Val Glu Pro Asp Arg Gln Gly Glu Lys Lys Gly Val Phe Trp Tyr			Fad2-F (GA908)	Q4275		
381	Asn Asn Lys Lys Leu ter			Fad2-D wt			
381	Asn Asn Lys Lys Leu ter			Fad2-D (GA316)	IMC129		
381	Asn Asn Lys Lys Leu ter			Fad2-F wt			
381	Asn Asn Lys Lys Leu ter			Fad2-F (TA515)	Q508		
381	Asn Asn Lys Lys Leu ter			Fad2-F (GA908)	Q4275		

Fig. 3E

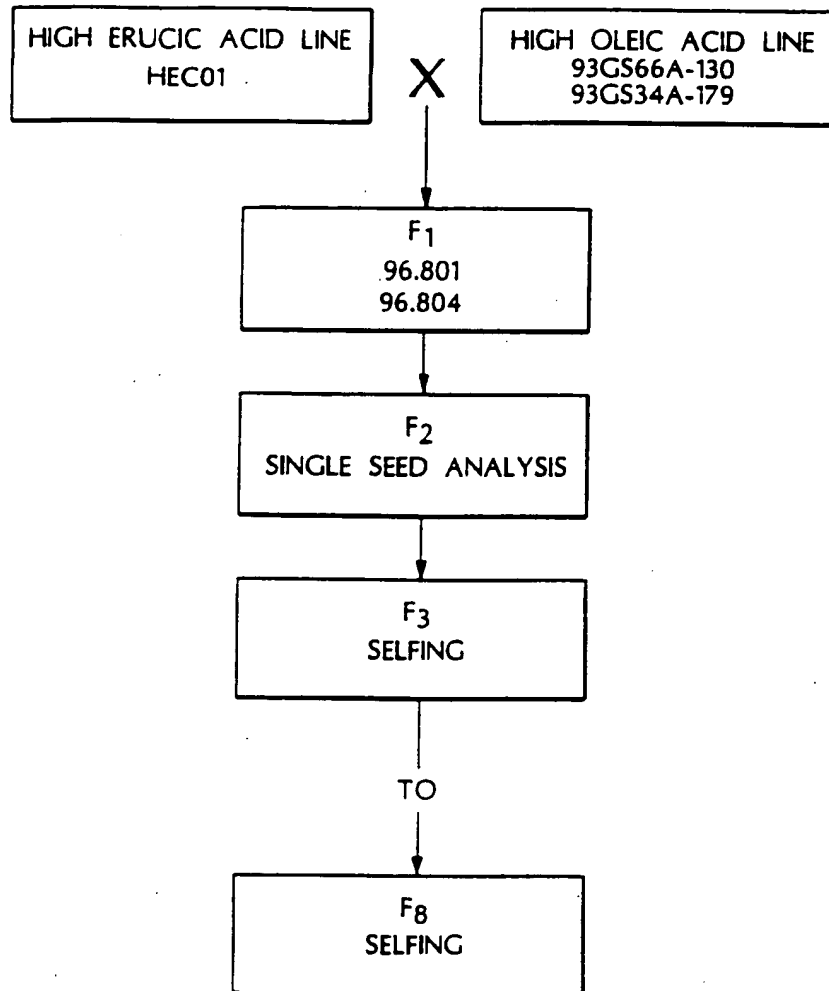


FIG. 4